

### **REMARKS**

Claims 1 and 3 are currently pending. Claim 1 is amended. Claim 2 is canceled.

#### **Claim Rejections**

Claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by US Patent 6,334,728 to **Suzuki**. Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over US Patent 6,334,728 to **Suzuki**. Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over US Patent 6,334,728 to **Suzuki** in view of US Patent 6,783,292 to **Arai et al.** However, it is submitted that the cited prior art, either alone or in combination, does not teach or fairly suggest all the features of the present claimed invention.

For instance, **Suzuki** does not explicitly disclose the claimed feature:

a portion of an outer periphery of the chuck corresponding to a lead holding structure from a substantially central point to a front end of the outer periphery is formed as a peripheral surface which extends substantially parallel to an axis or which inclines toward the axis of the mechanical pencil, and a portion of the outer periphery from the substantially central point to a rear end of the outer periphery is formed as a surface which is perpendicular to the axis or as a peripheral surface which is inclined toward the axis, an inner periphery of the fastener to which the outer periphery of the chuck is formed as an inclined surface which is inclined toward the axis rearward at a predetermined angle

**Suzuki** only describes a chucking head 41 and a chuck ring 5 as “The feed chuck 4 has a chucking head 41. A chuck 5 is loosely put on the chucking head 41” at column 3, lines 50-51, without any further specificity. Fig. 6 of **Suzuki** also does not clearly disclose this claimed feature. Indeed, the inner surface of the chuck ring 5 appears to be *parallel* to an outer periphery of the chucking head 41 – in which case **Suzuki** does not disclose the

claimed fastener with an inner periphery that is inclined toward the axis rearward at a predetermined angle. Therefore, **Suzuki** cannot achieve the claimed contact point between the inner periphery of the fastener and the outer periphery of the chuck, set at substantially the center of the outer periphery of the chuck corresponding to a lead holding structure. And, **Suzuki** cannot achieve the damage suppression described in Experiment 2 that is achieved by the present claimed invention.

In addition, amended claim 1 recites “a radius of curvature of an inner periphery of the lead holding structure of the chuck is set in a range of 90% or more and 96% or less of a radius of the lead.” This is described, for example, in paragraphs [0034]-[0037] of the present specification. By setting a radius of curvature of the lead holding section of the chuck in a range of 90% or more and 96 % or less, the lead holding structure can bite into the lead and the lead can be held without fail. In addition, even if the size precision of the fastener and the lead holding section are varied or the diameters of lead are varied, a load application point can be set to a center of the length of the lead holding section according to the claimed features of claim 1. Therefore a bite being stronger than necessary can be prevented and the damage on the lead can be suppressed.

**Suzuki** does not disclose any specific radius of curvature for the lead holding structure of the chuck. The Office Action contends that the claimed range is obvious (if too large = lead will pass through without being hold; and if too small = lead will not fit in). However, nothing in **Suzuki** limits the radius of curvature to the specific claimed range. Based on the reasoning set forth in the Office Action, even an 89° value would be “not too large” and “not too small.” Yet,

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an 89° value is clearly outside the claimed range, and is directly contrary to the unexpected benefits of the claimed range, as described in the present specification (*see, e.g.*, pages 16-18). For example, as discussed on page 18 of the specification, “especially when the holding diameter is 89%, no difference is found with respect to the case where the weight point is on the rear side in the experiment 2, and it is necessary that the holding diameter is 90° or higher to reduce the damage on the lead.” For at least these reasons, **Suzuki** does not render the claimed range obvious.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants’ undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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